

MOVING TOWARDS AN ACTIVE LIVING SOCIETY

A VIEW FROM SINGAPORE

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THE 'LITTLE RED DOT'

Singapore is a multicultural nation of 3.8 million citizens of Chinese, Malay, Indian and other ethnicities. This 'little red dot' has been rated as one of the leading countries in the world for education, income, health and longevity^{1,2}. Singapore's primary resource is its people, so evidence-based strategies aiming to improve and sustain health-related quality of life are critical for maintaining the independent function and productivity of citizens while mitigating the unnecessary consumption of healthcare resources. These conditions provide an ideal opportunity to test the implementation and dissemination of initiatives related to promoting physical activity.

A key strategy for creating and sustaining population health is to invest in the development of an ecosystem that promotes active living. James Sallis, a well-known scholar and advocate of active living asserts that the term has evolved out of the limited concepts of sport, exercise and physical activity resulting in broader conceptual models now used to guide

research, policy and practice³. In order to complete the ecosystem, several unique domains of active living must be established and promoted.

Active living can be accomplished in a number of ways in different domains of daily life. These may include commuting, engaging in occupational physical activity, doing household or outdoor physical activities, engaging in recreational exercise or sporting activities and decreasing sitting time. To promote active living at the population level, no single approach is likely to work. Therefore, wide-ranging and multiple approaches with multisectoral partners are needed. The International Society for Physical Activity and Health has developed an evidence-based framework known as the 7 Investments that Work (7IW)⁴, which serves as a reference guide to develop an active living ecosystem.

This article will briefly describe how the people, private and public sectors in Singapore are aiming to promote and sustain better quality of life for Singaporeans through a journey towards

building a sustainable active living ecosystem. Examples that will be described within the 7IW framework consist of:

1. schools,
2. transport,
3. urban design,
4. healthcare,
5. public education,
6. community,
7. sport and recreation.

SCHOOL SYSTEM

Move, experience, live

Schools provide a setting in which children and young people can develop knowledge, skills and abilities that help promote and sustain active living for a lifetime. Along with the development and promotion of the National Physical Activity Guidelines for children and youth, a new physical education (PE) curriculum has been established that focuses on three simple key themes for inculcating active living in the student population⁵:

- Move: this aims to get students to be more active to achieve the recommended



Singapore has set up ActiveSG, a programme that provides access to sports and recreational activities not offered in schools. In another effort to reach young people, the Singapore Health Promotion Board launched Sundays in the Park, an initiative to get busy families out to the national parks and participate in fun activities that promote movement and family bonding time. These projects integrate well in the largely urban Singaporean population, generate intrinsic interest in healthy lifestyle pursuits among students and provide a system of accountability for the health of the country's youth.

TRANSPORT POLICIES

Access and assurance

More than half of Singapore's citizens use the public transport system, accounting for a total of over 5 million trips per day. The Ministry of Transport, along with the Land Transit Authority⁶, is integrating and optimising key modes of transport that support active living. These include the rail, bus, cycling, walkways and personal vehicle systems. Each individual programme benefits certain residents who can take advantage of the transport system, but collectively they maintain a unified healthy lifestyle ecosystem:

- **Walk2Ride:** to further promote the use of public transportation and active commuting, the Land Transit Authority is increasing walkability and connectivity between transport hubs, business, schools, facilities and homes by extending covered outdoor walkways from the current ~50 km to a total of ~200 km.
- **Stairways:** the Health Promotion Board has supported the development of active transport ecology by providing evidence-based, point-of-decision prompts for stair use⁷, along with other health messages and promotions along active commuting routes.

amount of weekly physical activity. To support this recommendation, the Ministry of Education increased weekly PE time from 1 to 2 hours per week.

- **Experience:** beyond PE, there is an initiative to instil habits of moving regularly in Singapore's abundant outdoor settings such as parks, trails and nature reserves. PE periods provide knowledge, skills and abilities related to navigating the outdoor environment.
- **Live:** this aims to get students to sustain an active lifestyle outside of the school setting and into adulthood. Students in secondary and tertiary schools are encouraged to take part in after-school, co-curricular activities, which may include sports, games and dance.

To further support this curriculum

change, the Ministry of Education modified the National Physical Fitness Award/Assessment (NAPFA) from an annual to an alternate-year test. In the old system, students just prepared themselves to pass the test instead of finding the joy or intrinsic benefit in healthy lifestyle activities. The new system creates more opportunities for students to participate in a broader range of physical activities that they enjoy rather than the narrow regimented exercises conducted to pass an annual test.

Students are also qualitatively rated on their values, attitudes and participation during PE lessons and the new test will determine how much they participate in physical activity with family and friends outside of school. To further support the augmentation of the curriculum, Sport



- Rail system: to further increase the utilisation of the rail system, the Land Transit Authority plans to double the rail network from ~180 km to ~360 km by 2030. Upon completion of the growth plan, it is estimated that 80% of households will live within a 10-minute walk of a train station.
- Bus system: the current bus system provides ~400 service routes with plans to expand by ~10% over the next 2 years with a concomitant ~20% increase in the bus fleet.
- National Cycling Plan: the plan was developed in part by using a grassroots, community-based participatory approach. The Land Transit Authority is partnering directly with each town to develop and assure intra-town cycling connectivity to major transport nodes. At the same time, the National Parks Board is developing a fully integrated Park Connector Network to be completed by 2020. In combination, the integrated town and park connector cycling networks will span an area of more than 700 km across Singapore.
- Personal vehicles: additional policies that support active living involve

regulating private vehicles. The car to citizen ratio is 9:100 and private transportation is controlled through a variety of policies, including a vehicle quota system, high import taxes, registration fees and road fees. The combination of these fees increases total car cost to almost four times the base price of traditional car ownership.

To further assure the uninhibited flow of commuter traffic and the promotion of active transport, the Land Transit Authority launched the Travel Smart network. This system encourages companies to create supportive environments for employees through flexi-travel and active-travel arrangements. Further, companies can leverage a Travel Smart consultancy voucher, grant and rewards:

- Travel Smart rewards: commuters can earn points proportional to the distance they travel on the rail system with extra points earned during off-peak hours.
- Travel Smart consultancy vouchers: this voucher scheme helps defray the costs associated with consultancy fees related to employee travel pattern analyses and the development of a customised action plan for the organisation.

- Travel Smart grant: this grant provides cost support for early morning exercise sessions, and installation of bicycle racks, lockers and shower facilities.

URBAN DESIGN

Live, work and play

Through its design policies, the Urban Redevelopment Authority⁸ has mitigated urban sprawl and established self-contained towns with moderately high connectivity and walkability. The Health Promotion Board, using the Walkability Index, evaluated the level of connectivity and walkability⁹. The majority of citizens live in very good quality public housing developments that have been decentralised into four regions away from the central business district. Each town is made up of neighbourhoods that are adjacent to schools, supermarkets, clinics, local restaurants and community, sports and recreational facilities. In addition, there are more than 1100 'fitness corners' and jogging paths spread across all public housing developments in the city.

Currently there are also more than 450 parks throughout Singapore, with development plans for 85% of housing areas to be within 400 m of a park by 2030. In

addition, the old Malayan Railway track is being converted into a 26-km green corridor that will provide a variety of leisure and recreational activities. The unprecedented access to these amenities is partially possible because of Singapore's small overall footprint and urban infrastructure, but similar city-sized projects may take note of the way in which district organisation allows for a local active living ecosystem.

HEALTHCARE

Exercise is Medicine

Exercise is Medicine™ is a global public health initiative that aims to make exercise prescription a standard of practice for healthcare providers. Providers are asked to assess physical activity as a vital sign and to counsel and refer patients accordingly. When implemented properly, this initiative provides an assertive approach to disease prevention and management.

Launched in 2012, Exercise is Medicine™ Singapore (EIMS) serves as the hub for the Association of Southeast Asian Nations (ASEAN) region. EIMS provides capacity building and advocacy by:

1. training healthcare providers to use physical activity as a vital sign,
2. training healthcare providers to prescribe appropriate physical activity to each patient or to refer the patient to a certified health and fitness professional,

3. developing a framework for allied health and fitness professionals to work with physicians in implementing patient exercise plans,
4. encouraging the public to ask for and expect physicians to discuss physical activity during each office visit.

PUBLIC EDUCATION

Anytime, anywhere

To establish a foundation of collaboration between government organisations, it was necessary for healthcare and related organisations to develop and agree on national physical activity guidelines. These guidelines considered age, cultural and multisectoral perspectives and were aimed at improving individual and population health. To provide a broad view of the perspectives and needs of society, the Singapore Health Promotion Board formed the National Physical Activity Guidelines Consensus Group, consisting of a cross-section of key local and international academics, educators and allied health practitioners. A practical series of adult, older adult, child and youth activity guidelines were launched between 2011 and 2013¹⁰. The guidelines were in line with the active living approach and promoted lifestyle activity with an 'anytime anywhere' message.

After the release of the guidelines, members of the consensus group

transitioned into advocates and implementers of the guidelines and worked with their respective organisations and partners to adapt the recommendations. The established guidelines have been beneficial for major stakeholders in Singaporean life: government, allied health, education, commercial fitness and volunteer organisations. Manifestations of the guidelines have also appeared in educational curricula, government policies and programmes, and major initiatives such as ActiveSG¹⁰. The National Physical Activity Guidelines served as a precursor to organising national planning meetings and the foundation was instrumental in reaching the following objectives:

- clarifying principles and established best practices,
- developing a basis for the establishment of goals and objectives,
- helping justify the allocation of resources for programmes and policies,
- generating better optimisation and integration efforts between organisations.

Promotion of the guidelines was a vital part of the 3-year Healthy Living Together campaign. Gradual spinoff promotions occurred across the public, private, healthcare, education, media and community sectors. Government organisations have leveraged various



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forms of communication channels to reach a significant number of citizens through traditional media, road shows, websites, smart phone apps, IPTV and social media. The promotion of active living is regularly integrated as part of holistic lifestyle campaigns or initiatives such as the annual National Health Lifestyle Campaign, Healthy Living Together, Million Kg Challenge, Walk2Ride, Travel Smart, ActiveSG and the Health Living Master Plan. In all cases, a strong, consistent media presence was vital for making these promotions visible and viable across Singapore.

SPORTS SYSTEM

Sports for all

Concurrent with the National Physical Activity Guidelines, the Ministry of Culture, Community and Youth along with Sport Singapore, Peoples Association and the Health Promotion Board began to develop the Vision 2030 plan¹¹. Led by Sport Singapore, joint multisectoral meetings were held to determine and plan how sport could better serve the nation. After aggregating and reviewing inputs from the various sectors, three key schemes were established for building a sporting ecosystem:

1. building a world class sporting city,
2. developing regional, integrated sports centres and national training centres,
3. integrating school, community and Sport Singapore facilities to form ActiveSG hubs.

A key feature of Vision 2030, ActiveSG was launched in 2014 as a comprehensive and inclusive national movement to encourage Singaporeans to engage in active living through sport and recreation for well-being, rather than just for performance or competition. ActiveSG aims to provide residents of all ages, interests and fitness levels with easy access to a wide range of physical activity opportunities. Operationally, Sport Singapore has partnered with citizens, private organisations and public sector institutions to develop and share facilities and programmes that are affordable and appropriate to diverse segments of society. ActiveSG members pay low fees to participate in these programmes and use these facilities. To kick-start and advertise the initiative, Sport Singapore had a very successful campaign that gave all citizens S\$100 worth of 'sports bucks'. The

Vision 2030 programme provides ample time for cultivating true interest in activities that support active living.

COMMUNITY

Healthy together

Along with Sport Singapore, the Health Promotion Board and the People's Association play a key role in developing, implementing and offering community-wide physical activity programmes. One such example was the development of the national Senior Physical Activity (SPA) initiative. Three key organisations worked together along with community development centres to establish the initiative. This programme is open to all citizens but primarily targets people who are 50 years and older. Passionate politicians, understanding the value of activity for well-being, chaired the committee along with key representatives of other public organisations. The foundation of the initiative was based on three principles:

- low- or no-cost for participants,
- evidence-based physical activity for health and well-being,
- easy-to-learn physical activities that do not require equipment.

Four national programmes were rolled out over 5 years, including Brisk Walk, Health Qigong, Taichi for All and Dance Fit. Participation in the programmes was driven by:

- central funding,
- grassroots recruitment,
- 'Train the Trainer' programmes,
- participant reward programmes,

- agreed-upon outcomes with the Ministry of Finance.

The three outcomes of the national programme were:

- more active lifestyles – encouraging older adults to stay physically active,
- better social well-being – promoting neighbourliness and social connectedness,
- better health outcomes – empowering older adults to look after their own health.

An independent, 1-year evaluation by Duke-National University of Singapore found that, when compared to a representative national sample, SPA members:

- stayed more active,
- had better self-related overall health and showed more health-promoting behaviours,
- were more socially connected.

Total participation in the SPA programme has created over 1200 clubs with more than 150,000 members to date. SPA is now sustained as part of the National Wellness programme managed by the People's Association throughout more than 105 neighbourhood community and wellness centres.

Beyond the National Wellness programme, there is a plethora of low- and no-cost opportunities for citizens to participate in workplace and community programmes. These are matched to age, gender, time, location, and social and cultural needs. The Health Promotion Board, Sport Singapore and People's Association

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work jointly and independently to provide a vast cross-section of highly accessible community and workplace programmes. The underlying themes usually focus on fun, health and togetherness. Citizens can find a list of programmes and facilities available for booking on the websites of each of these organisations:

- Health Promotion Board physical activity programmes,
- ActiveSG,
- onePA.

CONCLUSION

Move more, sit less

Inactivity was recently estimated to account for ~10% of all premature deaths globally, similar to that of smoking¹². To mitigate this problem, Singapore has made co-ordinated efforts and continues to work persistently across sectors to adapt and implement the 7IW framework principles. These policies and programs continue to be effective vectors for change in promoting healthy lifestyles as evidenced by the recent upward trend of adults meeting the national physical activity guidelines^{13,14}.

VECTORS OF CHANGE

In summary, some of the key components that have enabled Singapore to successfully move towards an active living society include:

- Leadership: government officials are directly involved in the development and implementation processes. A vested agency such as the Health Promotion Board needs to proactively work across the various sectors and help coordinate efforts.
- Adaptation: government officials and organisations aggregate learning from study trips, expert visits and research to adapt programmes to the local setting.
- Funding: funds are allocated based on meticulous pre-, ongoing and post-assessment.
- Partnerships: for each initiative, the people, private and public sectors work together to create 'win-win-win' solutions and sustainability.
- Industry development: to operationalise efforts on the ground, the government consistently seeks opportunities to build capacity in the private sector and award vendors that engage in best practices to

create a healthier living ecosystem.

- Community: politicians and government agencies work side by side with community members and volunteers to advocate and assure the initiatives run efficiently.

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